9 24. (Twice Amended) A method for producing a tocopherol compound in a host cell, said method comprising obtaining a transformed host cell, said host cell having and expressing in its genome:

D2 a construct having a nucleic acid sequence comprising SEQ ID NO: 1 operably linked to a transcriptional initiation region functional in a host cell.

29. (Amended) A method for increasing the biosynthetic flux in a host cell toward tocopherol production, said method comprising transforming said host cell with a construct comprising as operably linked components, a transcriptional initiation region functional in a host cell, a nucleic acid sequence comprising SEQ ID NO: 1, and a transcriptional termination region.

D3

REMARKS

Claims 36 and 39 have been cancelled without prejudice. Claims 19, 24, and 29 have been amended. Support for these amendments may be throughout the specification, *e.g.*, page 5, lines 14-16, page 7, lines 1-2, and page 41, example 5. Claims 1, 13, 18-33, and 42-44, are currently pending.

I. Rejection under 35 U.S.C. §112, 1st Paragraph: Written Description

Claims 36 and 39 remain rejected under 35 U.S.C. §112, first paragraph, as allegedly containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Office Action at page 3. Applicants respectfully traverse this rejection. However, to facilitate prosecution, Applicants have cancelled claims 36 and 39 without prejudice to or disclaimer of the underlying subject matter.

II. Rejection under 35 U.S.C. §112, 1st Paragraph: Enablement

D1

Claims 19-33, 36, and 39 remain rejected and claims 42-44 are rejected under 35 U.S.C. § 112, first paragraph, as allegedly not being enabled. Office Action at page 4. Applicants respectfully traverse this rejection. To facilitate prosecution, however, Applicants have amended independent claims 19, 24, and 29 to refer to SEQ ID NO: 1. Claims 36 and 39 have been cancelled as noted above. Withdrawal of this rejection is respectfully requested.

III. Rejection under 35 U.S.C. §112, 2nd Paragraph, Indefiniteness

Claim 19 remains rejected under 35 U.S.C. §112, 2nd paragraph because the term "alteration" is allegedly indefinite. Office Action at page 7. This rejection is respectfully traversed. However, to facilitate prosecution, Applicants have amended claim 19 to refer to a method of increasing tocopherol content. Withdrawal of this rejection is respectfully requested.

Claims 29 remains rejected under 35 U.S.C. §112, 2nd paragraph because the phrase "increasing the biosynthetic flux in a host cell toward tocopherol" is allegedly indefinite. Office Action at page 8. This rejection is respectfully traversed. Applicants disagree that claim 29 is indefinite or vague, and respectfully point out that claims are to be read in light of the specification. *See In re Vogel*, 422 F.2d 438, 441, 164 U.S.P.Q. 619, 622 (C.C.P.A. 1970). The meaning of "increasing the biosynthetic flux" is clear when read in light of the specification, which provides examples of increased tocopherol and a description of increases, decreases, and modulation of ratios of tocopherol compounds. Withdrawal of this rejection is respectfully requested.

IV. Rejection under 35 U.S.C. §102

Claims 19 and 20 stand rejected under 35 U.S.C. §102(b) as allegedly being anticipated by Kuntz *et al.*, *The Plant Journal 2*:25-34 (1992). This rejection is respectfully traversed. In any case, amended claims 19 and 20 refer to SEQ ID NO: 1. Whatever else Kuntz *et al.* disclose, they do not disclose SEQ ID NO: 1. As such, it is submitted that claims 19 and 20 comply with 35 U.S.C. § 102, and withdrawal of this rejection is respectfully requested.

Claims 19 and 20 stand rejected under 35 U.S.C. §102(b) as allegedly being anticipated by Zhu *et al.*, *Plant Molecular Biology 35(3)*:331-341 (1997). This rejection is respectfully

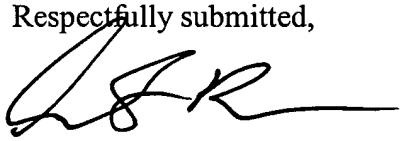
traversed. In any case, amended claims 19 and 20 refer to SEQ ID NO: 1. Whatever else Zhu *et al.* disclose, they do not disclose SEQ ID NO: 1. As such, it is submitted that claims 19 and 20 comply with 35 U.S.C. § 102, and withdrawal of this rejection is respectfully requested.

CONCLUSION

In view of the above, each of the presently pending claims is believed to be in immediate condition for allowance. Accordingly, the Examiner is respectfully requested to withdraw the outstanding rejections and to pass the application to issue. The Examiner is invited to contact the undersigned at (202) 942-5000 with respect to any unresolved issues remaining in this application.

Applicants do not believe that any fees are due at this time other than those provided for in the accompanying papers; however, should any fees be required for any reason relating to this document, the Commissioner is authorized to deduct the fees from Arnold & Porter Deposit Account No. 50-1824, referencing attorney docket number 16516.105.

Respectfully submitted,



David R. Marsh (Reg. No. 41, 408)
Andrew S. Brenc (Reg. No. 45,534)

Date: 8/19/02

ARNOLD & PORTER
555 Twelfth Street, NW
Washington, D.C. 20004
(202) 942-5000 telephone
(202) 942-5999 facsimile

Marked Up Claims

19. (Amended) A method for [the alteration of] increasing the tocopherol content in a host cell, comprising transforming said host cell with a construct comprising as operably linked components, a transcriptional initiation region functional in a host cell, a nucleic acid sequence [encoding a prenyltransferase] comprising SEQ ID NO: 1, and a transcriptional termination region.

24. (Twice Amended) A method for producing a tocopherol compound in a host cell, said method comprising obtaining a transformed host cell, said host cell having and expressing in its genome:

a construct having a [DNA sequence encoding a prenyltransferase] nucleic acid sequence comprising SEQ ID NO: 1 operably linked to a transcriptional initiation region functional in a host cell[,

wherein said prenyltransferase is involved in the synthesis of tocopherols].

29. (Amended) A method for increasing the biosynthetic flux in [cell from] a host cell toward tocopherol production, said method comprising transforming said host cell with a construct comprising as operably linked components, a transcriptional initiation region functional in a host cell, a [DNA encoding a prenyltransferase involved in the synthesis of tocopherols] nucleic acid sequence comprising SEQ ID NO: 1, and a transcriptional termination region.